

REMARKS

Claims 12-16 and 54-60 are pending in the application. Claims 54-60 have been allowed. Claims 13-16 have been objected to but would be allowable if rewritten in independent form including all of the base limitations of the previous claims.

Amendments to the specification are being submitted at this time in order to place the Application in better form for processing by the Printing Division. No new matter has been entered. The representations on pages 21 and 25 have been removed from the Specification and added as Figures. A description of the Figures has been added as the "Brief Description Of The Drawings".

Claims 12 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al., U. S. Patent No. 5,571,869. The Examiner states Lee discloses a process in which polymer particles are grafted, wherein the polymer particles may include polyvinyl chloride and wherein the grafted monomer may include non-conjugated dienes, see column 2, line 16 and column 3, lines 16-19. The Examiner states it would have been obvious to one of ordinary skill in the art at the time of the invention to use the combination Applicant has chosen in the process of Lee to arrive at the claimed invention, absent any showing of surprising or unexpected results.

Claim 12 has been amended to more clearly define the invention claimed therein over the cited Lee reference. The polyvinyl chloride grafted non-conjugated diene composition is the reaction product of a polyvinyl chloride solute and at least one non-conjugated hydrocarbon diene solute. Support for Applicants' amendment is found on at least page 27, lines 4 through page 28, line 16. As stated in the cited passage, poly(vinyl chloride) is desirably dissolved in a suitable solvent. Likewise, the non-conjugated diene is also added to the solution where the reaction takes place upon the addition of a catalyst. As detailed in the specification, the active or labile chlorines on the polyvinyl chloride take part in and are removed from

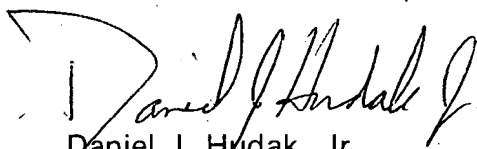
the poly(vinyl chloride) chain during the reaction allowing grafting of the non-conjugated diene thereto. As stated on the bottom of page 26, the number of grafted oligomers derived from a conjugated diene grafted to each polyvinyl chloride chain is generally from about 1 to about 20. Thus, each polyvinyl chloride chain includes at least one non-conjugated hydrocarbon diene graft.

In contrast, the Lee reference cannot teach or suggest the claimed reaction product of a polyvinyl chloride solute and at least one non-conjugated hydrocarbon diene solute. Lee teaches the solid phase reaction of polymer particles with ethylenically unsaturated monomers in the absence of both free radical initiators and solvents, see "Summary of the Invention", column 1, lines 25-29. The Lee reference teaching subjects the solid polymer to an impinging flame to cause localized heating or miniature hot spots of the solid polymer to reportedly create free radical sites which react with the one or more ethylenically unsaturated monomers, see column 1, lines 57-64. The Lee reference utilizes solid polymer in particulate, powder, granular, flake, or other noted forms, see column 2, lines 23-26. The average particle diameter is desirably less than 10 or 20 mm and is preferably in the range from about 0.1 to about 5 mm. Thus, Lee cannot teach Applicants' claim 12 reaction product formed in solution.

It is respectfully submitted that the claims of the present invention have been distinguished from the Lee reference and a Notice of Allowance is earnestly solicited. Should the Examiner have any questions or concerns regarding this response, a telephone call of the undersigned is greatly appreciated in order to expedite allowance of the application.

Respectfully submitted,

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